Notice of Allowability	Application No.	Applicant(s)	
	09/713,849	BIEDERMAN, DANIEL	
	Examiner	Art Unit	
	Mark A. Mais	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the Amendment filed on 30 April 2007*.

2. ☒ The allowed claim(s) is/are *1-29*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Cindy Kaplan on August 6, 2007.

Claim 1 (previously presented) In a communication network, a method for forwarding data across said network, said method comprising:

associating each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-realtime communications;

receiving data comprising packets, wherein at least some of the packets support real time and at least some of the packets support non-real time communications;

assigning one of said priority levels to said data, wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than data not supporting real time communication;

selecting a compression level for said data based on said priority level; and

sending said data through said network.

Claim 2 (original): The method of claim 1 further comprising:

compressing said data only if said priority level is below a threshold.

Claim 3 (previously presented): The method of claim 1 further comprising:

compressing said data according to said priority level prior to sending said data through said network.

Claim 4 (previously presented): The method of claim 1 wherein determining said compression level comprises determining said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 5 (original): The method of claim 1 further comprising:

determining a compression level for said data based on said priority level and network congestion; and

compressing said data according to said priority level prior to sending said data through said network.

Claim 6 (original): The method of claim 5 wherein determining mid compression level comprises determining said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 7 (original): The method of claim 1 further comprising;

setting a threshold priority level for compression eligibility based on network congestion; and

compressing said data only if said priority level is below said threshold.

Claim 8 (original): The method of claim 1 wherein said priority level corresponds to a quality of service class.

Claim 9 (original): The method of claim 1 wherein said data comprises a packet.

Claim 10 (previously presented): In a digital communication network, a method for forwarding packets across said network, said method comprising:

associating each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-realtime communications;

providing a data compression system having a variable compression level;

inputting said packets to said data compression system while adjusting said variable compression level for individual ones of said packets responsive to said priority level of said packets, wherein said priority level is based on a delay tolerance of said packets and packets supporting real time communication have a higher priority level than packets not supporting real time communication; and

sending said packets as compressed through said network.

Claim 11 (currently amended): In a digital communication network, apparatus for forwarding data across said network, said apparatus comprising:

a compression system that compresses said data according to said compression level; and

an output interface that forwards said data across said network as compressed by said compression system; wherein each of two or more priority levels are associated with different compression levels.

Claim 12 (original): The apparatus of claim 11 wherein said compression system assigns said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 13 (previously presented): The apparatus of claim 11 further comprising: a network congestion estimator that estimates network congestion; and wherein said compression switch assigns said compression level responsive to said network congestion.

Claim 14 (original): The apparatus of claim 11 wherein said data comprises a packet.

Claim 15 (original): The apparatus of claim 11 wherein said priority level corresponds to a quality of service class.

Claim 16 (currently amended): A computer-readable medium encoded with a computer program ~~product for~~ forwarding data across a network, said ~~product~~ program comprising:

code that associates each of two or mote priority levels, wherein said priority levels are assigned to data supporting both real time and non-realtime communications;

code that assigns said priority level to said data, wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than data not supporting real time communication;

code that selects a compression level for said data based on said priority level; and

code that sends said data through said network ~~and a computer-readable storage medium that stores the codes~~.

Claim 17 (currently amended): The ~~product~~ program of claim 16 further comprising:

code that compresses the data only if said priority level is below a threshold.

Claim 18 (currently amended): The ~~product~~ program of claim 16 further comprising:

code that determines a compression level for said data based on said priority level; and

code that compresses said data according to said priority level prior to sending said packet through said network.

Claim 19 (currently amended); The ~~product~~ program of claim 18 wherein said code that determines said compression level comprises code that determines said compression level

according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 20 (currently amended); The ~~product~~ program of claim 16 further comprising:

code that determines a compression level for said data based on said priority level and network congestion; and

code that compresses said data according to said priority level prior to sending said data through said network.

Claim 21(currently amended) The ~~product~~ program of claim 20 wherein said code that determines said compression level comprises code that determines said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 22 (currently amended): The ~~product~~ program of claim 16 further comprising;

code that selects a threshold priority level for compression eligibility based on network congestion; and

code that compresses said data only if said priority level is below said threshold.

Claim 23 (currently amended): The ~~product~~ program of claim 16 wherein said data comprises a packet.

Claim 24 (currently amended): The ~~product~~ program of claim 16 wherein said priority level corresponds to a quality of service class.

Claim 25 (currently amended): A computer-readable medium encoded with a computer program ~~product~~ for forwarding packets across a network, said ~~product~~ program comprising:

code that provides a data compression system having a variable compression level;

code that inputs said packets to said data compression system while adjusting said variable compression level for individual ones of said packets responsive to priority level of said packets, wherein said priority level is based on a delay tolerance of said packets and is assigned to data supporting both real time and non-real time communications; ~~and~~

code that sends said packets as compressed through said network~~; and a computer-readable storage medium that stores the codes~~

wherein each of two or more priority levels are associated with different compression levels.

Claim 26 (previously presented): In a data communication network, apparatus for forwarding data across said network, said apparatus comprising:

means for associating each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-realtime communications;

means for assigning a priority level to said data wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than data not supporting real time communication;

means for selecting said data for data compression responsive to said priority level; and

means for sending said data through said network.

Claim 27 (currently amended): In a packet switched network, apparatus for forwarding packets across said network, said apparatus comprising:

means for compressing data using a variable compression level;

means for inputting said packets to said compressing means while adjusting said variable compression level for individual ones of said packets responsive to priority level of said packets, wherein said priority level is based on a delay tolerance of said packets and is assigned to data supporting both real time and non-real time communications ; and

means for sending said packets as compressed through said network;

wherein each of two or more priority levels are associated with different compression levels.

Claim 28 (previously presented): The method of claim 1 wherein said data compression comprises at least three different levels of compression corresponding to different priority levels.

Claim 29 (previously presented) The method of claim 1 wherein data having a low priority level assigned thereto has a higher compression level and a longer processing delay than data having a high priority assigned thereto.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138. The examiner can normally be reached on M-Th 5am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan F. Wing can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAM
August 6, 2007

8/6/07

WING CHAN
SUPERVISORY PATENT EXAMINER